Banking Low-Income Populations: Perspectives from South Africa

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Forthcoming in

Insufficient Funds:
Savings, Assets, Credit and Banking Among Low-Income Households

edited by

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Draft: March 3, 2008

I. Introduction

When Muhammad Yunus was starting Grameen Bank in Bangladesh in the late 1970s, Mary Houghton and Ron Grzywinski, founders of Shorebank, the leading community development bank in the US, made repeated trips to Bangladesh to assist the novice banker and his funders. The international exchange went two ways. In the mid-1980s, Muhammad Yunus met Bill and Hillary Clinton in Washington, and Yunus inspired the Clintons to help launch a replication of the Grameen Bank in Arkansas (Yunus 1999; Taub 2004). Since then, exchanges have proliferated as the Grameen model has been replicated elsewhere in the United States (including Project Enterprise in New York City and Count-Me-In, a nationwide replication; Jurik 2005). The fundamental argument—that low-income households can be reliable bank customers, and that access to finance can be a catalyst to help reduce poverty—has taken wider hold.

For the most part, though, conversations about poverty and finance in the United States and conversations in developing countries run along different lines. The asset-building framework—focusing on helping households build long-term assets to support investments in businesses, housing and education—has been particularly influential in the United States. Policy initiatives like Individual Development Accounts (IDAs, a subsidized long-term saving mechanism for low-income households) and children's savings accounts have captured the imaginations of policymakers and activists, in part because the policies hold the promise for re-orienting social welfare systems to foster greater autonomy for recipients (Sherraden 1996 and this volume).

The push to build long-term assets, though, has not been a top focus in poorer countries. Instead, policymakers in low-income countries focus mainly on more immediate and instrumental concerns, especially raising incomes through business loans (so-called micro-credit) and, to an increasing extent, expanding access to general-purpose savings accounts and insurance.

Microfinance advocates argue that reliable financial access can have strong positive social and economic impacts even when households, in the end, build few lasting assets.[1]

A second push away from the asset-building framework comes from a strong emphasis on commercially-viable interventions. Rather than finding ways to re-direct systems of public grants and subsidies (as with IDAs in the United States), the emphasis in low-income countries has, of necessity, been on delivering affordable, basic retail financial services to poor households—and doing so with limited subsidies.

Our research on global microfinance leads us to argue that a strong focus on expanding reliable access to banks, credit unions, and other basic finance providers makes strategic sense in the United States as well. In principle, the vision entered legislation as the U.S. Community Reinvestment Act in the 1970s (Barr 2005), but while the CRA spurred an expansion of banking in poor communities, there is still much distance to go. A recent study of bank branches in New York City, for example, finds that neighborhoods where half of households have incomes above $60,000 have one bank branch for every 2,165 people. Neighborhoods with a median income under $19,000 have just one bank for every 14,153 people (Weiner 2007). Where banks are absent, residents turn to friends and relatives or the pawnshops, payday lenders, and check-cashers that serve as "fringe" banks (Caskey 1996), often with high costs. In the U.S., John Caskey reports that the number of pawnshops has grown from 4,800 in 1986 to 12,000 today (Fernandez 2007). Over one third of New York City's pawnshops are in the Bronx, one of the least-banked areas of the city. Deploying subsidies for long-term asset-building can complement expanding access to reliable banks, but will not substitute for such access.

If there is growing international convergence around the need for a wider distribution of banks, ambiguity remains around priorities in providing services. Muhammad Yunus's stress on the importance of loans for productive purposes (to seed and expand small businesses) has proved popular with a wide audience from the left and right. It strikes particular chords with people worried that entrepreneurship and self-reliance are values missing in traditional government transfer programs.

We argue that business investment is important but only one of the needs for finance in low-income communities, and it is not particularly helpful for employed people who work for others. In the United States, many would-be small-scale entrepreneurs are hobbled by regulation and a lack of management and marketing skills, in addition to a lack of capital (Schreiner and Morduch 2002). Even without those limits, the need for credit extends beyond business needs. Households using pawnshops in the U.S., for example, use the funds to buy groceries, travel to work, pay utility bills, and keep up on rent payments (Fernandez 2007). The evidence below shows that the pattern is also broadly true in South Africa, a country with a growing consumer finance industry aggressively filling voids left by banks (Porteous 2004).

We argue that household financial needs begin with basic, reliable ways to manage cash flows and short-term expenses. When households lack ways to do that easily, emergencies often force households to rely on the mercy of predatory lenders or the kindness of friends and relatives with little of their own to spare. Both paths can be expensive in their own ways, and when neither path is sufficient, we too often see emergencies triggering downward spirals toward destitution. In less extreme cases, we see ongoing instability that hinders future-looking investment. Facilitating basic cash flow management is thus an often-neglected foundation for other initiatives. With that in place, the next steps will necessitate going beyond Yunus's focus on "micro-enterprise" loans—a process that has already started at the Grameen Bank itself and that holds lessons for U.S. finance as well

This chapter reports on one step in that process—the better understanding of the financial lives of poor households: their constraints, objectives, and aspirations. The chapter draws on a study of "Financial Diaries" that details the financial lives of poor households in three low-income communities in South Africa.[2] The study includes households in low-income urban township and rural areas, drawing a sample from the (relatively) wealthiest in the areas to the poorest.

South Africa and the United States

The U.S. is, of course, a much wealthier country than South Africa, with a GNP per capita of $28,000, nearly three times that of South Africa. Still, the wide income disparities in both countries mean that households in the lowest income ranges in the U.S. have similar income and asset levels to those covered in the South African Financial Diaries. On average, the Financial Diaries households have an annual income of $12,400, measured on a purchasing power parity basis.[3] The Survey of Consumer Finance[4] reports that the mean income for U.S. households below the 20th percentile is $10,800. While there are certainly differences—politically, historically, and culturally--the households have similarly low incomes, juxtaposed against a sophisticated financial system that does not adequately cater to their needs.

In both South Africa and the United States, lack of access to banks has emerged as a major policy issue. Roughly 15.3 million South African adults, half of the adult population, are "unbanked"—i.e., lacking bank accounts in regulated financial institutions (Finscope 2006). In the United States, estimates place 9.1 percent of families in the same category, though there is wide regional variation (Caskey et al 2006).

Important differences limit direct comparisons though. Most central is South Africa's legacy of apartheid and ethnic divides that remain. Another is economic: in South Africa, the labor market is loose – official unemployment rates run about 30 percent, though the figure likely under-counts informal employment. In the Financial Diaries data, even when we account for informal jobs, only 42 percent of the adult population earns their income from regular, steady employment. In the South African context, having a regular job is a strong marker of success: you generally earn much more than others and have access to a wider variety of financial services. In contrast, the U.S. labor market is much tighter: as we write this in January 2008, for example, the official unemployment rate was reported at 4.9 percent. But, unlike in South Africa, having a job in the U.S. is not as strong a marker of success – it can still be difficult to make ends meet with a regular job—and it is not uncommon for low-income households to struggle to manage money and save for the future even with two earners. We thus do not seek direct parallels between South Africa and the United States. Instead, we focus on insights around the importance of access to money management tools, structured ways to accumulate, and flexible devices for addressing emergencies. These fundamental ideas bear on ways to improve financial access in the United States. They have emerged in our research across a variety of financial landscapes, and, for the most part, transcend race, location, ethnicity, and class.

Our starting point is understanding the financial arrangements in which households are already engaged. The financial lives of the poor are complex. Household membership and sharing arrangements are fluid and often ambiguous, incomes come from a variety of sources and livelihoods, and cash flows are often small and irregular. Michael Barr (this volume) points out that the financial practices of the low income households in Detroit are not fixed and we show similar evidence from South Africa. Households combine both formal and informal services, and move in and out of using them as needed. This chapter describes how these factors play out with regard to credit and saving, and ultimately with regard to income, assets, and poverty.

Three observations

The first and most important finding in our research is that the households we study are active financial managers. It would be easy to assume that low income households have little in the way of financial lives, given their income levels. But that logic gets it backward. It is because incomes are so low that households devote considerable energy to strategizing around their financial lives. As described below, households juggle "portfolios" of financial relationships; some are with formal banks and other financial institutions, others with friends and family. The formal financial mechanisms do not tend to easily displace the informal. Even the wealthiest households in the sample, who are using an extensive portfolio of bank accounts, formal loans, retirement annuities and insurance, still tend to interact with the informal financial sector, primarily in savings clubs and burial societies. These respondents suggest to us that their continued use of informal mechanisms is not only due to a desire to maintain social solidarity, but also because these mechanisms suit their needs in a way that formal instruments do not. All mechanisms, taken together, are needed to provide the kinds of reliability, flexibility, and discipline that households demand. Households seek flexible ways to address unexpected events and, contrastingly, structured devices that impose discipline in order to save. This finding on the centrality of basic money management tools also emerges in closely-related studies in two very different contexts: Bangladesh and India.[5]

Second, the households we study often save diligently, though not always in banks. They don't need particular incentives to save, but they do need appropriate mechanisms. These are safe and convenient, and they often build in commitment devices. Informal "savings clubs" organized among neighbors, for example, help households discipline themselves to accumulate in small amounts over time. Strikingly, we find many households who accumulate largely through informal devices, even when they have access to reliable savings accounts in banks. One of the problems with these devices is that they are set up for accumulating short term savings, leaving households to accumulate higher value assets (like a house) incrementally, or to augment savings with funds from other sources during an emergency. The evidence below suggests that there is a demand by low-income households in poor countries for structured long-term savings devices (of which the IDA is an example). Public subsidy, though, need not be a part of the equation.

Third, with respect to policy in both developed and developing countries, consumer finance often carries negative associations—in the US via association with "predatory lenders" and mountains of credit card debt and, in poorer countries, via tales of exploitative moneylenders. In contrast, credit for productive purposes, most importantly microloans to support micro-enterprises, has been widely embraced by policymakers. But, as noted above, when we look more closely, the households we study in fact desire consumer finance more strongly than loans for micro-enterprise. Even loans that are nominally made to support small businesses are often diverted to other purposes—and often with good reason. In South Africa, low-income households often use loans to cope with health shocks, pay for school fees, put food on the table, and participate in communal and religious activities. The choices made by households suggest that the need is for access to credit to be used for flexible purposes. In this way, the international conversation on microfinance has been too limited—as, we believe, has the U.S. conversation on microfinance.[6] A beginning step is to re-imagine "consumer finance" in a more constructive light—while not dismissing the serious and ongoing concerns with over-indebtedness and predatory lending.

These three observations characterize important elements of the financial lives of the low-income households we came to know in South Africa. They are not much different, in fact, from important elements of the financial lives of richer South Africans, nor of typical Americans. The observations mesh with what we are learning about how "fringe" banks are used in the United States, as well as lessons from the emerging literature in behavioral economics (see, for example, Mullainathan and Shafir in this volume). The implications align with movements away from a strict focus on asset building toward improving access to basic banking services and the spread of simple tools like debit cards, ATMs, structured ways to save, and, especially abroad, mobile phone banking (Tufano and Schneider describe a range of mechanisms in their chapter in this volume).

II. The Financial Diaries Data

Valuing the assets of poor households in poor countries is more difficult than doing so in wealthier countries where prices, ownership, and asset qualities are more easily established. Large household surveys have been collected, but precision is variable. The Financial Diaries begin with a complementary approach, with the aim to collect rich data on a very small set of households such that the richness of the analysis compensates for the relative smallness of the sample (Collins 2005).

The Financial Diaries studies continuously track a small number of households across an extended time period. The word "diaries" is something of a misnomer—respondent households do not actually keep a diary themselves. They are interviewed by field researchers every other week for one year. These field researchers ask respondents detailed questions about their financial flows during the prior two weeks—did they take a loan, or deposit money into an account, or take goods on credit? The first Financial Diaries study took place in Bangladesh in 1999, led by Stuart Rutherford. Households were interviewed across two research sites – one in the slums of Dhaka and the other in a rural village. The next study, led by Orlanda Ruthven in India, took the lessons learned from Bangladesh and applied a more rigorous framework, particularly in the area of livelihoods. Both studies used small samples of 42 and 48 households, respectively, and used qualitative data collection methods.

The South African Financial Diaries, designed by Daryl Collins, built on both studies, tracking daily cash flows across 152 households from November 2003 to December 2004.[7] The households were drawn from three different areas: Langa, an urban township; Lugangeni, a rural village; and Diepsloot, a suburban township. This paper uses the South African data, with supplementary information from the Indian and Bangladesh Diaries.

Several key innovations were brought into the South African Financial Diaries. Data collection was aided by a specially-built relational database. This database allowed for a substantial improvement in data quality. First, questionnaires were generated for each household, based on data from the previous interview. This meant a higher precision of recall, even for small financial transactions. Second, field workers calculated an on-the-spot reconciliation of household cash flow statements, which allowed them to easily target cash flows that households may have forgotten or avoided discussing. As shown in figure 1, measurement errors, even after three or four visits, are initially large, but after six interviews (about three months) the margin of error across the sample falls to an average of 6 percent of sources of funds. This method allowed us to track, with high precision, a set of over 200 income, expenditure, and financial transaction daily time series for each household.[8] Note that most of the errors at the start of the study were negative, meaning that the uses of funds (expenditures and financial outflows) were higher than the sources (income and financial inflows). This came largely from an initial underreporting income from irregular and informal sources and from financial inflows. These are both particularly difficult data to collect from households in any context.

Insert Figure 1 about here

The diaries allowed us to do more than increase data quality, though. The structure also gave us the opportunity to spend part of the interview time in open-ended conversations with households, providing rich qualitative data. This allowed us to follow households' financial dilemmas, opportunities, and strategies as they played out from week to week. In this way, the diaries revealed a diversity of activities that usually remain hidden in one-time cross-sections or even in annual longitudinal studies.

As with all longitudinal survey research, the survey method, based on fortnightly visits, could induce changes in behavior among the respondents over the study year. The research team saw little that explicitly appeared to be such behavioral change, but we acknowledge the possibility as a trade-off entailed in gathering detailed data.[9]

III. Portfolios of the Poor

With reliable data in hand, we calculate the mean value of financial assets in Financial Diaries households as $9500 in South Africa, converted at market exchange rates. Adjusting for purchasing power parity (PPP), this number rises to $22,754 for South Africa. The South Africa sample thus compares roughly to households below the 20th percentile in the United States, whose average assets are reported by the Survey of Consumer Finance to be $26,100.

A more inclusive picture is gained by considering debt as well. This is captured by "net worth," the sum of physical assets (such as livestock, land, housing material and furniture) and financial assets (such as balances in bank accounts and savings clubs plus informal loans or credit given) less liabilities (balances on loans or credit outstanding). The net worth in the rural versus the urban areas is given below in table 1. Note that rural households have higher net worth than urban households, when, in the U.S. context, one might expect the opposite. In the South African context, the net worth of rural households is swelled by their livestock holdings, as well as by the fact that their homes are generally more substantial homes than those of city dwellers, who often live in shacks or hostels.

From the numbers above and the figures in table 1, one might assume that the households are not financially active, but looking at cash flows reveals a different story. The table shows that the households "push" and "pull" significant amounts of money through financial instruments over the course of a month (i.e., depositing, withdrawing, borrowing and repaying), more than might be expected from their relatively low net worth. Again, we see that rural households tend to be more active than urban households. We found that rural households tend to use more financial instruments rather than fewer, for two reasons. First, many of the wealthier households in the rural areas are teachers and nurses who tend to hold a wide array of insurance and retirement instruments. Second, because people commonly return to their home village to be buried, rural households tend to need to be more prepared for funerals and therefore participate in more funeral insurance instruments than those in urban areas.

Table 1 shows that households may not hold on to high net worth, but they have higher turnover in financial instruments than might be expected. (Table 2 demonstrates this even more starkly with data from a single household.) The turnover is largely driven by the need to match small and often irregular income inflows to household consumption needs. The financial lives of the poor and low-income households that we see thus largely revolve around managing cash flows within the year. Neither year-end assets nor debt give a full or accurate picture.

Insert Table 1 about here

Basic money management is achieved by patching together diverse financial strategies. In South Africa, households used an average of 17 different financial instruments over the year in their ongoing financial portfolios.[10] These include, for example, loans from neighbors and relatives, membership in burial societies, savings accounts in banks, and consumer finance loans. Note that, even though South Africa has a sophisticated and substantial banking system, most of the financial instruments are informal ones. Low-income households are managing their money, but in ways that are not always visible through official banking statistics. Instead, the most important "portfolios" are composed of personal relationships that can be called on to help manage income flows, to match them to the timing of expenditures, and, as best possible, to accumulate for future needs.

Consider Sylvia, a very disciplined 39 year old woman living in a shack in Diepsloot, South Africa, outside of Johannesburg.[11] She earns about $370 per month as a house cleaner for two separate clients. Every month she has her employers pay her into two different bank accounts. One she uses for all her expenses, and the other she tries not to touch. Keeping two different bank accounts is more expensive in terms of bank fees, but it has given her a mechanism with which to save half her salary every month—a mechanism in keeping with the notion of "mental accounts" prominent in behavioral economics (e.g., Thaler 1990).

Sylvia also contributes to a formal savings plan, which will come due when her daughter is 16 and needing money for university. By requiring deposits at regular intervals, this device builds commitment, another feature that has become central to the behavioral economics literature (Thaler 1990). Sylvia tries to keep aside money in the house, but this is a mechanism that requires an extremely disciplined budget. She concentrates on paying off her two credit cards that she had used the past Christmas. Other important savings mechanisms include five different informal savings clubs organized by neighbors, a financial device common in South Africa and across the developing world (Rutherford, 2000). As table 2 demonstrates, Sylvia manages a portfolio of financial activities, borrowing and saving with a diversity of financial instruments. The result has paid off in her more than doubling her financial net worth over the year.

Insert Table 2 about here

IV. Building savings and assets

Having low incomes does not mean that poor households do not have aspirations. The South African Financial Diaries households had financial goals similar to ones that we see in better-off households, particularly with regard to acquiring a home and paying for important events like weddings, funerals, and holiday celebrations (a finding seen in many countries with regard to spending by the very poor; see Banerjee and Duflo 2007). We saw that a substantial amount of monthly income could be diverted in an effort to attain these goals. In an average month, 26 percent of monthly income went into savings instruments, primarily bank accounts and informal savings clubs. Because incomes are small (an average of $1000 per month, converted at PPP rates), savings represent a relatively small absolute amount of $260 per month. More important, these small amounts are usually not given an opportunity to accumulate for more than one year, before they are diverted to short term needs or unexpected events. One implication has been raised before: only viewing changes in year-end balances may greatly under-represent the need for and use of savings vehicles.

A second implication is that, although households were able to set aside proportionately large amounts of money every month, they were not as able to accumulate for the long term. We found that savings tended to be short term in nature, with larger assets needing to be built up, in kind, over time. And when unexpected events did hit, households augment savings with funds from a variety of sources. Finding ways to convert short-term accumulations into long-term assets is thus a continuing concern.

We saw in the previous section that Sylvia saved successfully by contributing to a formal savings plan in anticipation of her daughter's university expenses. There is an important commonality and difference with the Individual Development Account approach in the United States (Sherraden 1991 and this volume). Sylvia seeks a device that allows her to save in ways that make sense to her, with discipline and a clear set of goals. IDAs share that possibility. The devices used by Sylvia, though, are unsubsidized. She would, of course, likely be happy with a subsidy, but it is not a necessary component of her interest in saving, nor her ability to save in quantity. One implication is that there are contexts in which it makes sense to separate the roles of the subsidy and product design in considering alternatives to (or innovations in) devices like IDAs.

In other cases, discipline and incentives to save are instilled through informal devices. A third point is that most households use a combination of financial instruments, *both* formal and informal, to attain their financial goals. Jonas and Mimimi are a case in point. They are a married couple who run a shebeen (township bar) in Langa, a township of Cape Town. As the table below shows, they have an impressive capacity to save money. Mimimi earn profits from the shabeen business of about $324 per month, while Jonas works as a gardener and is paid $185 per month. Mimimi typically manages to send home about $31 per month for either building their home in the Eastern Cape or supporting their children living there. She then managed to stretch about $88 for their living expenses every month. A typical monthly budget is detailed in table 3.

Insert Table 3 about here

The share of income they are able to save is unusual in this sample, but their strategy is not. Jonas and Mimimi's most important savings devices are two informal savings clubs. Savings clubs are commonly found all over the world (see Rutherford, 2000 for many examples). In South Africa, they tend to come in two forms: rotating clubs (Rotating Savings and Credit Associations, or RoSCAs) and accumulating clubs (Accumulating Savings and Credit Associations, or ASCAs). In a rotating club, each member contributes a set amount of money each period, and one person walks away with the entire sum of the contributions, the "pot." The next month another person will get the "pot" and so on, until everyone has had a turn. The money is always taken by someone so it does not need to be kept anywhere, nor is interest earned. In an accumulating club, members contribute a set amount each period and the money accumulates for the duration of the club, usually a year or six months. In this case, the money may be deposited in the bank in a club account and earn a small amount of interest, or it may be kept at a member's house.

Jonas and Mimimi belong to one of each type of club and between the two, they save about $367 with these savings clubs. A total of about $3065 was paid out from one of them savings club during 2004, and it was all used to build the house in the Eastern Cape. The other savings club paid out $725 in December 2004. From this payout, they spent the majority on a Christmas feast and Christmas presents when they went to the Eastern Cape for the holidays. But they would still leave behind about $260 to buy cement for the floors and to buy doors for the house.

At the end of the year, this young couple built up about $4 000 in savings (not counting the money sent to the Eastern Cape every month) between the two savings clubs and the saving they retained from Jonas' salary in a bank account. Of this savings, 12 percent was spent on Christmas, 6 percent was retained in the bank and 82 percent was used to build the Eastern Cape house.

The reliance on local savings clubs is striking as Jonas and Mimimi also have a savings account in a bank. One may wonder why savings clubs have been a larger generator of savings for them than the bank, particularly given the risks associated with the transfer of cash at meetings or in storing money in a member's home. Unlike the bank account, however, the savings clubs offer social pressure to make steady deposits, and they provide structure for steady accumulation. In Jonas and Mimimi's case, these savings were invested immediately in a house they were building in the rural areas, although we use the word "investment" with caution. Rural homes are rarely bought and sold, so home ownership in this situation is more about cultural norms than financial investment.

As noted, Jonas and Mimimi's experience with savings clubs is not unusual among low income South African households. Two-thirds of the sample used at least one savings club during the study year. Savings clubs are a huge part of savings growth, but, by their very structure, most of these savings are set up to be short term, with payouts being saved and used within a year. On average, over the course of ten months, savings cycles in savings clubs lasted only 6.6 months before the money was used for the purpose for which it was saved.

Incremental asset building over time

Because savings get diverted to other things along the way, most large purchases are built up incrementally. A key example of this is a home. The way Jonas and Mimimi saved to build the house and the proportion of savings that went towards the house is similar to many other households in South Africa, India and Bangladesh—although quite different from typical patterns in the United States. Raising lump sums is one way to get cash together to acquire housing, but housing is also improved or obtained incrementally.

Nearly half of South African Financial Diaries homeowners said that they acquired their homes by buying the housing supplies bit by bit over time. Other means of acquisition might be through a lump sum--that is, saving up through a savings club like Jonas and Mimimi--or getting paid out from a pension scheme. Households also use retail credit from a store, usually a local supply store. Rarely do households acquire their home via an informal loan from a money lender or a loan from a family member. Some have access to a formal loan from a bank, and about one quarter, mostly in the rural areas, inherit their homes.

The South African Financial Diaries data allows for an estimation of how much households tend to put aside from their monthly cash flow for housing improvement and acquisition. Often these amounts would quickly add up to a new room, or a wall around the property. Many homeowners in different areas and income levels were building up their homes by bits and pieces throughout the year. At least half the Financial Diaries households made some sort of expenditure on housing improvement or acquisition during the study year. The amount spent, if pro-rated to a monthly basis, was between 4-6 percent of monthly income. This spending was not just undertaken by the wealthier households in the sample. Although the relatively poor were less likely to spend on their homes, half of these poorest households still managed to find enough funds for home improvement.

Tomlinson (1999) adds evidence to the picture painted above. She interviewed focus groups of 150 beneficiaries of the South African government housing subsidy. Contrary to conventional wisdom, she found that the number of people who said they did not want a mortgage loan outnumbered those that did by three to one. Respondents were concerned about a number of issues involved in having a mortgage: the high interest charges, the control that the bank would have over their lives, fears of repossession. This does not mean that respondents did not want or plan to improve their homes, only that they wanted to be in charge of their finances and not take on more than they could handle. Similar to the Financial Diaries households discussed above, they would rather buy the material they needed when they could afford to do so, incrementally.

As noted, this mode differs from home ownership strategies in low-income communities in the United States. Building a home, a common course in South Africa, is different from buying one. The South African example instead serves as a reminder of the possibilities for simple home improvement loans as a complement to mortgages.

V. Coping with emergencies

Low income households face a large number of risks – health, accidents, theft – perhaps so many that they are not able to afford to insure against each of these risks individually. The rise of HIV/AIDS related deaths in South Africa means that funerals are an increasingly common event in the lives of low income households. Over the study year, 81 percent of households contributed to a funeral at least one time over the study year. These funerals are expensive, usually costing up to seven months of income. Such costs cannot be met out of cash flow, and if they are to be met at all a financial instrument, or combination of financial instruments, must be brought into play. In response to this situation, South African households invest in specialist instruments that we will refer to generally as “funeral insurance.” No less than 79 percent of the South African diary sample had at least one funeral insurance scheme of some kind in place during the research year, and most had more than one. Many were multiply covered, using more than one kind of plan or having more than one account in any one type of plan. Out of an overall portfolio of 8-12 financial instruments, households would usually have at least two types of funeral insurance. Funeral cover made up at least 10 percent of the instruments that composed the household portfolios, with households spending, on average, 3 percent of gross monthly income in total on all of their funeral cover instruments.

Yet these funeral plans were only a part of the sources of funds brought together to pay for a funeral. In considering insurance products, it is not necessary for a product to cover the entire cost of an event in order to alleviate the burden of an emergency. The funeral insurance devices we see provide partial coverage only, but add importantly to the financial mix. An example of the expenses and funding sources demonstrates how much funerals cost and how households pay for them. Thembi is one of the urban respondents, a 50 year old woman who lives with her 47 year old brother. The major source of income for the household was the disability grants of $114 per month that each received, plus a part time job that Thembi held.[12] Thembi belonged to a burial society and a savings club, but hadn't managed to accumulate much savings. She struggled with depression and a host of other chronic ailments, such as high blood pressure and often spent money on medication. When Thembi's brother died, reportedly of tuberculosis, in June 2004, she was left scrambling for resources to pay for his funeral.

A set of consolidated accounts for the funeral is shown in table 4. Of the sources of funds, only 11 percent came from Thembi's burial society. The majority of the costs (54 percent) were paid for through relative's contributions. Thembi was able to scrape together a bit more by borrowing, both with interest and without, and by using money remaining from her own grant and that of her brother which she found among his things. She managed to pay for the funeral, but was left with a significant debt that she struggled to repay for the remainder of the year.

Insert Table 4 about here

As the examples above show, low-income households have aspirations and the budgeting ability to start on their way to realizing them. However, the instruments tend to be focused on funding short-term expenditures. This means that there is very little savings left unallocated towards a specific expenditure or for the much longer term, such as retirement. We found that only about 15 percent of adult singles and 18 percent of married couples in the Financial Diaries sample are forecast to have greater than five years of retirement support. Most of those are able to secure their future with retirement annuities and provident funds put in place by their employer. The others depend heavily on the old age grant provided by the state, worth about $114 per month at the time of the study. This is not much, particularly as several other household members may also depend on it.

The bottom line is that households have needs to save for the short, medium and long term. Although having a house is important, other needs, like life cycle events, are also central to a household's aspirations about how they want to live their lives. Commitment devices are effective but by their very nature they are also constraining and leave households vulnerable to unexpected events and long term plans. Households have many different goals to give their attention to and are well aware that assets over the long term may take more time to acquire as a result.

VI. Consumer and business finance

Microfinance for micro-enterprise has been trumpeted as a solution to poverty worldwide. Muhammad Yunus has spoken passionately about creating "poverty museums" one day after microfinance has helped to wipe out global poverty. The words fire the imagination, but many of the small businesses that we encountered over the study year were not sustained.[13] Many were started and stopped within the study year. Figure 2 divides the small businesses that were in process at the start of the survey year and those that were started during the survey year into two categories: those that were sustained during the entire year or those that were started during the year but then stopped. In total, we observed 46 businesses over the course of the year, three of which were started within two months of end of the study year to judge whether those should be considered sustained and so are not included in figure 2. For businesses to be considered sustained, they must have either been running when we first met respondents, or started and in business until the end of the study. In most of the three areas of the study, as many, or more, small businesses were started and stopped as were sustained. As the average monthly profits above the bars suggest, profitability was closely linked to sustainability. We found that many households would start a small business, mostly selling small things from home to try to find a way to generate extra income, but without a clear plan or any sense of whether the business would work.

Insert Figure 2 about here

The greatest need was for flexible working capital rather than capital finance for fixed costs. Part of this need was to fund the "debtor's book," a crucial link to sustaining small businesses. One key feature of entrepreneurial success entails managing credit that is given to customers. Figure 3 shows that over half the small businesses in the sample give credit. However, only about 10 percent in all areas feel compelled to charge interest. Of those that do, many simply round up the cost of the product rather than charging an interest rate, as can be seen in the case study below.

Insert Figure 3 about here

We see these points play out in the case of two beer sellers. We met Jonas and Mimimi at the start of this paper. As we mentioned, Mimimi runs a shabeen – a township bar. From her business, she'll usually have profits of about $370, more than her husband will earn in his full time job. One reason for Mimimi's success is her credit policy. She gets the bulk of her customers on Friday night, Saturday and Sunday. Her credit rules are very clear: she only gives credit on Sundays and you must pay by Friday or you don't get served that weekend. Also, she charges interest – instead of a beer costing $0.70 cash, it costs $0.77 on credit. This differs significantly to Busi who makes and sells traditional beer several shacks away from Mimimi. Like Mimimi, she tries to keep track of the credit in a book, but unlike Mimimi she doesn't enforce a credit rule. At one point in the study, we counted 16 people who owed her money. She doesn't charge any extra from those who take on credit. As a result, she barely earns enough to justify her efforts. Not everyone is a natural entrepreneur.

Even for those households with ongoing businesses, when we asked how they would use a capital loan, most said that they would use additional funds for their personal needs, rather than to expand their business. This indicates a growing need for consumer finance, exactly what many policy makers in both South Africa and the U.S. fear. A key argument in debates on over-indebtedness is whether debt is used for "productive" debt, like business loans or mortgage debt, or "consumption" debt, like installment credit for buying consumer items like a TV or clothes. However, when looking into the lives of Financial Diaries households, we found that this distinction was often difficult to make.

Installment credit was often used to buy school uniforms, which are necessary for children to attend school. Similarly, a savings club loan may be taken to pay for a funeral. Or credit at the local store may be taken to buy food. This reality does not mesh easily with the distinction between productive and consumption debt. If the lack of a school uniform would have prevented school attendance then it is difficult not to see this debt as productive—though it would not generate a short-term cash flow to service the loan. The key issue for success in repaying loans is having a sufficiently steady cash flow to service debt, whatever its purpose.

For one household, access to credit was crucial. Mapeyi is a 72 year old woman living in a house in the established part of an urban area with her three grandchildren. All four members of this household are supported by Mapeyi's monthly old age grant, worth about $114 at the time of the study. We witnessed Mapeyi's struggle to help contribute to the funeral of her daughter-in-law, which happened in June 2004. She took $40 from her grant, and received $155 from her daughter, who borrowed at work. She also borrowed $155 from the local grocery shop, from whom she used to take groceries on credit every month. When she borrowed the $155, however, she stopped taking credit, because she wanted to pay back the loan first. She did not pay any interest for either the loan or the credit. She took the loan in June and managed to pay back the loan from her grant by October.

The shop owner reported that she rarely gives credit to anyone without a salary but Mapeyi was a special case because she's been in the neighborhood so long and the shop owner knows she'll pay. She does however restrict the credit given to Mapeyi every month to $30 because she worries Mapeyi can't pay more. As figure 4 shows, Mapeyi tends to manage her credit fairly tightly, paying back 10 to 20 percent of her income to the shop. During the four months she was paying back the loan, she used between 30 to 60 percent of her income to pay the loan and severely restricted the household expenditures.

Insert Figure 4 about here

Several observations come out of this case. First, we see that even households that manage money carefully can be thrown into high level of debt when a sudden emergency arises. As mentioned above, having to pay for a funeral was something we observed frequently during the Financial Diaries and Mapeyi's situation is not an unusual one. However, we also see that the financial discipline Mapeyi showed prior to the funeral paid off after — she was able to move herself out of this debt situation fairly quickly, within four months. Second, we see that informal finance can be crucial to poor households. Mapeyi was able to secure a loan from the first place she asked, but had she not, what were her options? One possibility is that she may have had to borrow from the local moneylender at interest of 30 percent per month. In Mapeyi's situation, her relationship and good credit standing with the grocery shop owner, along with her own self-discipline, allowed her to pay for the funeral without putting herself in a debt trap. Finally, we underscore that access to reasonably-priced credit for people like Mapeyi can be critical. Her use of it, though, has nothing to do with the business-focused claims typically invoked to justify expanding credit access to low-income communities.

VII. Conclusions

The Financial Diaries revealed no households that lived "hand to mouth" despite low incomes. Instead, their financial circumstances meant that they needed to manage money much more actively than one might expect. They sought to make frequent transactions through a variety of financial instruments in order to save, insure against adverse events, and manage cash flow constraints.

Often, low-income households must turn to informal markets and institutions, but they are seldom as reliable as formal institutions. Consider the case of one respondent who supported her family of five by cooking and selling sheep intestines on the street. Often she would find that after a day of sparse sales or one where she sold on credit, she would not have enough cash to buy the ingredients for the next day's business. In order to alleviate her cash flow needs, she joined a savings club (which took the form of a rotating savings and credit association, or RoSCA) with four other street sellers.[14] Each would contribute $8 every day, making a total pot of $40. Club members too turns getting the pot each of the five working days of the week. It was a clever solution to a binding financial constraint. However, not everyone contributed on time and the club soon fell apart. We found many businesses in this situation, forced to rely on an assemblage of imperfect financial instruments.

The introduction and take up of new formal instruments that can help households manage cash flow, insure against adverse events, and save would yield obvious gains. But we also saw that it would not necessarily lead households to abandon their informal instruments. As we noted earlier in the paper, even when households become wealthier and are exposed to more formal instruments, they do not entirely drop their informal instruments. This continued adherence to informal instruments is not so much a matter of price as one of convenience—households, having found an instrument that suits some needs, are loathe to abandon it entirely. The convenience that informal instruments have, for example, often trumps formal instruments. However, while the introduction of new formal instruments into the household portfolio does not cause a complete abandonment of informal mechanisms, it does change the portfolio balance--in a direction that we suspect is less risky and has more diversity. First, informal mechanisms can be risky. They can fall apart, as the example of the sheep intestine seller above shows, or they can fail entirely. Sylvia, who we discussed in Section II, saved a tremendous amount in a savings club, but the club suffered a robbery at pay-out time and half their savings were lost. Second, with respect to savings, the very element that makes informal savings clubs work—their time-bound, inflexible nature—is also their downfall in contributing to a well-diversified portfolio. Moreover, savings clubs are useful for savings in the medium-term, less than a year, but they are not helpful for short-term cash management nor for allowing households to save for the longer term or for open-ended purposes. This leaves a large hole in the savings portfolios of the poor. Lastly, formal financial instruments can often be better value in terms of cost and reward; this includes the interest costs on short term loans and the fees for other instruments such as insurance. An analysis of formal burial insurance against informal burial insurance on the South African Financial Diaries dataset shows that formal insurance pays out at least as much as informal insurance, with some plans showing far better value.

The results of the studies in South Africa provide general insights into the financial management practices of low-income households. Most policy debates center around the "big ticket items" such as financing homes or obtaining a capital loan for a business, but this focus misses most of the action. Households have a variety of different needs and aspirations, not just for housing or for businesses. They cope with adverse events, manage every day cash flow, save for a wedding, borrow for a funeral. The important innovations need to do more than get incentives right and encourage discipline. They also should focus on developing truly reliable and flexible financial instruments for a wide variety of purposes. The first aim should be to help low-income households simply manage their money dependably. The next steps are to provide better ways for households to cope with unexpected risk and seize opportunities—supporting a migrating family member, paying for a doctor's visit or taking advantage of a business opportunity.

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[1] Armendariz and Morduch (2005), chapter 8, surveys evidence from impact evaluations of microfinance.
[2] The work described here is part of a collaborative project on collecting and analyzing "financial diaries" that also took place in Bangladesh and India. See Ruthven (2002) and Rutherford (2002) for more details and findings from the Indian and Bangladesh Financial Diaries studies. We are grateful for the collaboration of Stuart Rutherford, Orlanda Ruthven, and David Hulme, and have drawn substantially on their insights and ways of framing evidence, though the views here are ours. We know of no similar research program with regard to financial conditions in the United States, but find common themes in the ethnographic work of Venkatesh (2006), for example, and in the analysis of fringe banks by Caskey (1996).
[3] Numbers that are compared directly with U.S. numbers are converted from South African rand to US dollars at the purchasing power parity rate of 2.7. All others are converted at the market exchange rate, which at the time of the study was R6.5/US$1.
[4] All U.S. income data quoted in this paper are from the Survey of Consumer Finance, 2004, the same year that the South African Financial Diaries was conducted.
[5] Our debt to Stuart Rutherford on this score will be apparent to those familiar with his writings.
[6] Caskey (1996) is an important exception.
[7] Please see more details regarding the dataset, including survey instruments, on www.financialdiaries.com and in Collins (2005). One of the key advances made in the South African Financial Diaries and its use of a specially conceived and built relational database is the on-the-spot indicators that it gives the researcher while still in field. Our key indicator for data collection assessment is the margin of error. This measures all the sources of cash into the house (not only income, but also withdrawals from bank accounts, getting paid back from a friend, savings club payouts) as well as uses of income (expenditure, but also deposits into the bank account or "house account", paying premiums, giving a loan) less cash on hand. Ideally, this measure, from interview to interview, should be 0, or at least a small number. Each week, when we do our assessment of each data set, we pinpoint those households with large margins of error to determine whether there is a data capture error or if the household is simply holding something back. Errors such as the former are corrected during a site trip each month. Errors such as the latter are noted and filed. Although the data collection is not perfect in these households, we focused on "knowing what we don't know" and returned repeatedly to the "problem" households to get better information.
[8] Income and financial flows are collected on an individual basis and expenditure and physical assets are collected on a household basis. Because each household has different numbers of income sources and financial instruments, there is a wide variance in the number of time series collected per household. A household with two adults and two children and an average number of financial instruments would have about 200 time series observations of cash flow data.
[9] During the survey year, we wondered how much households changed their financial behavior as a result of being constantly asked about their money. In our year end interview, we probed this by directly asking whether being involved in the Financial Diaries changed their behavior or not. Many households said that it had indeed and that being involved in the project made them think more carefully about their financial decisions. A few respondents said that involvement in the project had no effect on their financial management at all. However, without a controlled experiment that would allow us to measure the size of this effect, we cannot comment on whether our persistent questioning caused households to manage their money more, or less, conservatively.
[10] In Bangladesh, Rutherford found that households used, on average, about 10 different financial instruments. Even with a large number of microfinance institutions in Bangladesh, the most frequently used financial instruments are informal.
[11] Names of all respondents in this chapter have been changed to protect their identities.
[12] See Case and Deaton (1998) for a description of the South African transfer system and its benefits for low-income families.
[13] This observation is also reflected in a broader survey by the Graduate School of Business, University of Cape Town and reported in Acs et al (2005). For a view from Indonesia, see Johnston and Morduch (2008).
[14] See Rutherford (2000) and Armendáriz and Morduch (2005), chapter 3 for more on RoSCAs and ASCAs.

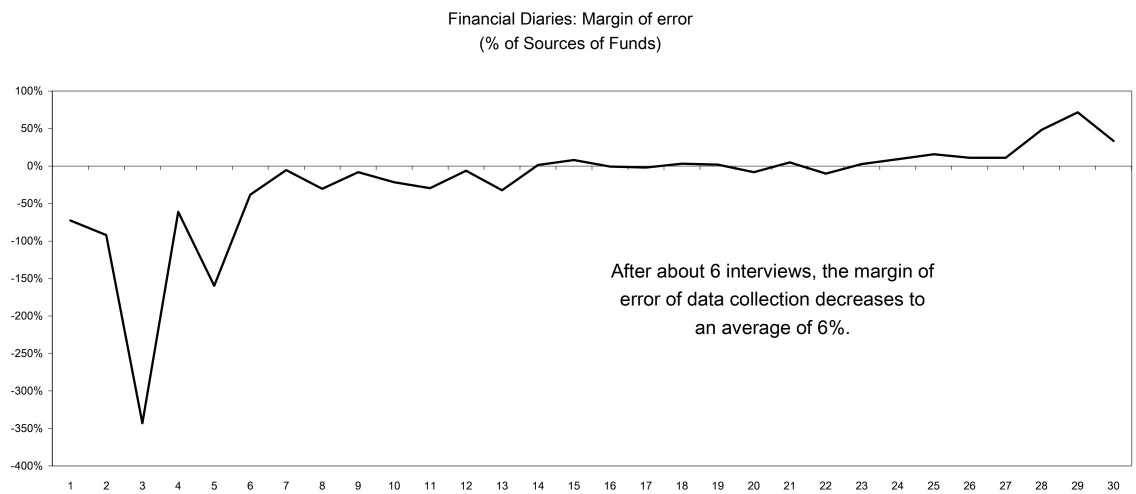

Figure 1: Financial Diaries Margin of Error (percent of sources of funds)

Table 1: Average financial net worth versus annual cash flows, South Africa (US$, converted at PPP rates)

	Year-end net worth	**Annual flows**
Rural	$24,293	$39,077
Urban	$12,576	$23,076

Table 2: Sylvia's financial net worth at the start and end of the research year (US$ at market rate)

		Start amount	End amount	Percent of end assets or liabilities[1]	Turnover[2]	Percent of turnover
	Assets					
Formal	Bank account	1373	2086	62%	10,353	54%
	Savings annuity	153	369	11%	182	1%
	Funeral plan	-	-		68	<1%
Informal	Saved at home	84	483	15%	4875	25%
	ASCA	0	246	7%	1206	6%
	Using a money guard	0	153	5%	153	1%
	Burial society	-	-		68	<1%
	Interest bearing loan	0	0	0%	2404	13%
	Total	**1,611**	**3,338**	**100%**	**19,314**	**100%**
	Liabilities					
Formal	Credit card	214	0		248	99%
Informal	Shop credit	0	0		1	1%
	Total	**214**	**0**		**249**	**100%**
	Financial net worth	**1,397**	**3,338**	**Total flows**	**19564**	

[1] *End amount of assets or liabilities taken over the total.*
[2] *Inflows into instruments from outflows out of it.*

Table 3: Mimimi's typical monthly budget (US$ at market rate)

	U.S. Dollars ($)
Source of funds	$509
Business profits	324
Regular wages	185
Uses of funds	$486
Cell phone	6
Cigarettes	3
Electricity	16
Food	49
Send money to Eastern Cape	31
Transport to shopping	1
Transport to work	13
Savings clubs	367
Net savings in bank	$23

Table 4: Sources and Uses of Funds for Thembi's brother's funeral (US$, at market rates)

Sources of funds		**Uses of funds**	
Cash contribution from relatives	$538	Undertaker	$538
In kind contribution from relatives	225	Tent	91
Burial insurance payout	154	Pots	35
Borrow from aunt's burial society (no interest)	154	Food	750
Borrow from cousin's savings club (30 percent per month)	92		
Borrow from cousin (no interest)	108		
Leftover money from grant	92		
Leftover money from brother's grant	50		
Total	**$1413**	**Total**	**$1414**

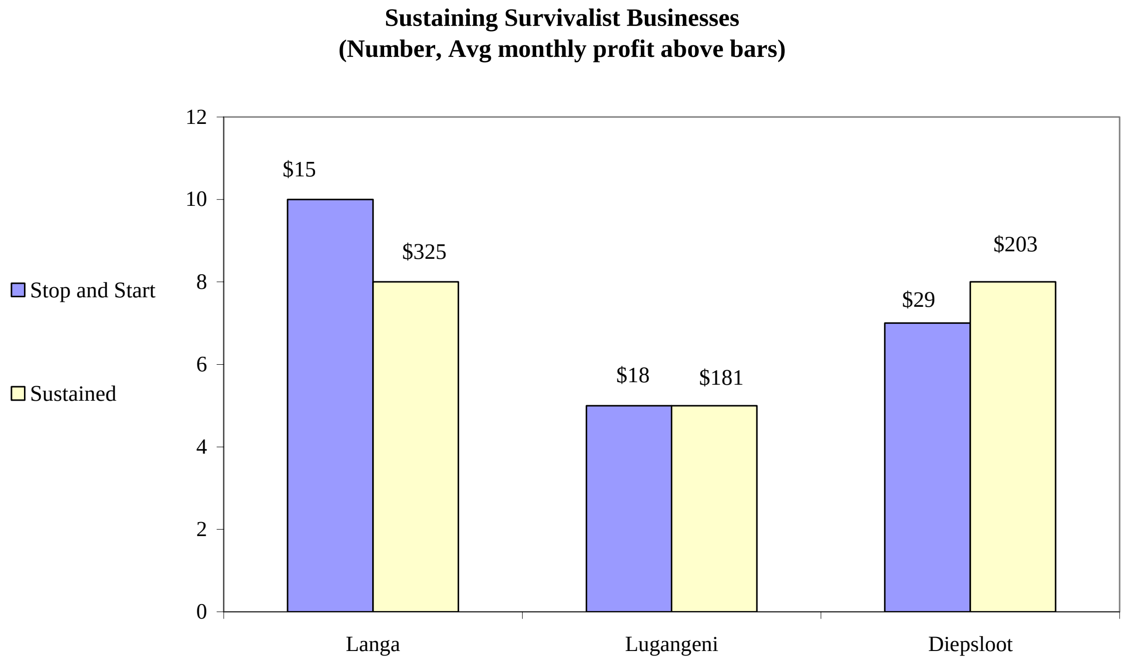

Figure 2: Sustaining survivalist businesses

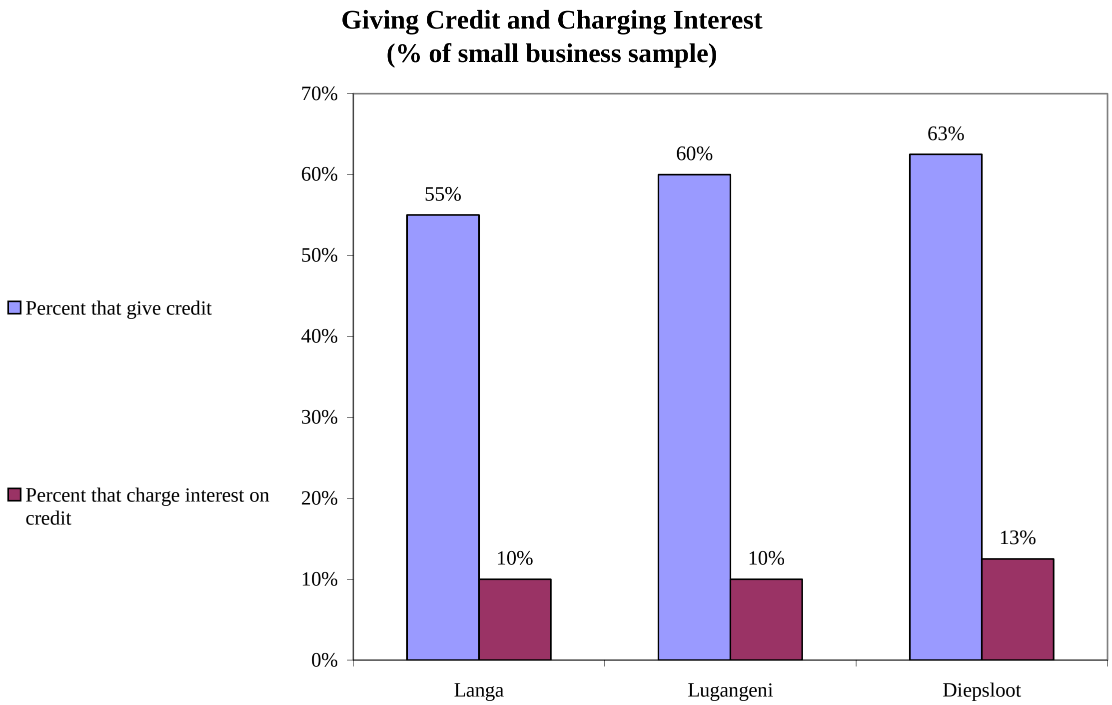

Figure 3: Giving credit and charging interest

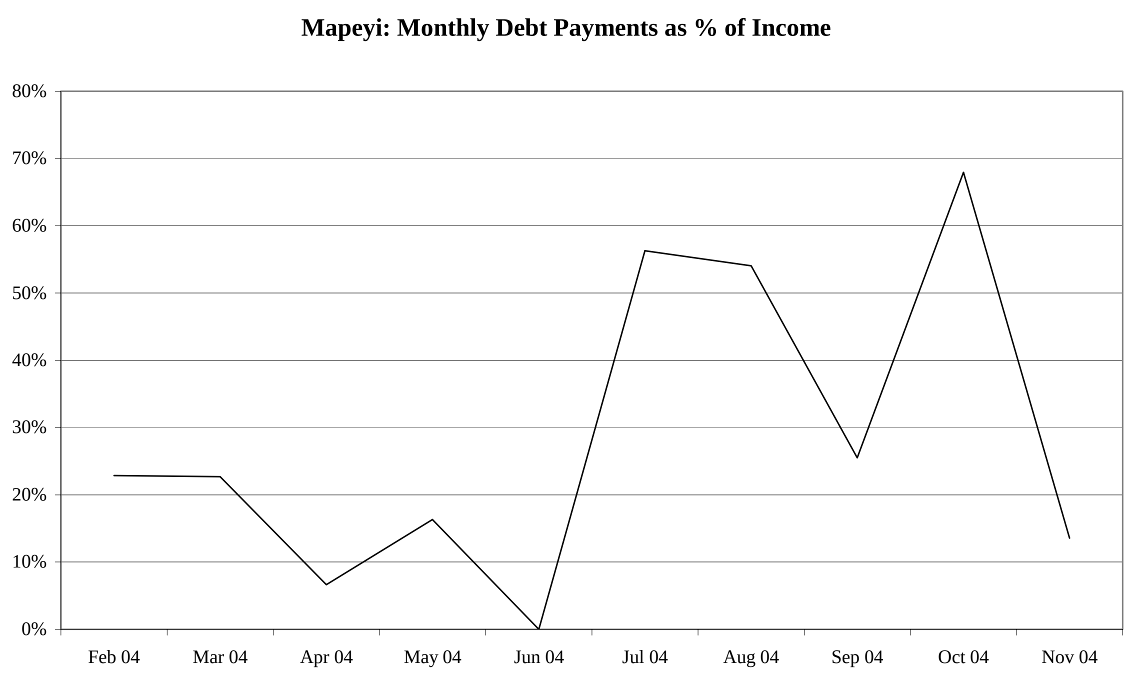

Figure 4: Mapayi's debt payments as percent of income